

Green Home Project

Oct. 5th. 2009(Mon)



Concept of One Million Green homes

- **Diversify RE sources and its application technologies in houses**

- **Broader RE application technologies to the residential area**

- * **2004-2008** : 100,000 Solar Roof Program, 23,636, 30,194kW, \$140mil

- **Give end-users more options to choose RE facilities upon their own house condition and needs**

- Application RE Techs

- PVs, Solar Thermal, Small Wind Power, Wood Pellet Boiler, Geothermal

- **Focus on far-reaching RE deployment policy**

- **From private residential houses to strategic large-scale deployment**

- Main focus Area : apartment complex, public rental houses, green villages etc

- **Enlarge social acceptance of RE advances from social, financial, value-added view point**

Green homes Project

The purpose and the government support

Deploy one million green homes by 2020

- Photovoltaic, Solar Thermal, Small Wind, Geothermal, Bio and more
- Subsidize 50-60% of installation cost to relieve the cost burden

Deployment Target in 2009

Unit : Million US Dollar

	Photovoltaic	Solar Thermal	Geothermal	Small Wind	Bio	Total
Houses	13,000	1,800	10	50	800	15,660
Budget	57.5	21	1.8	0.7	1.6	82.6

Subsidy Plan for Green homes in 2009

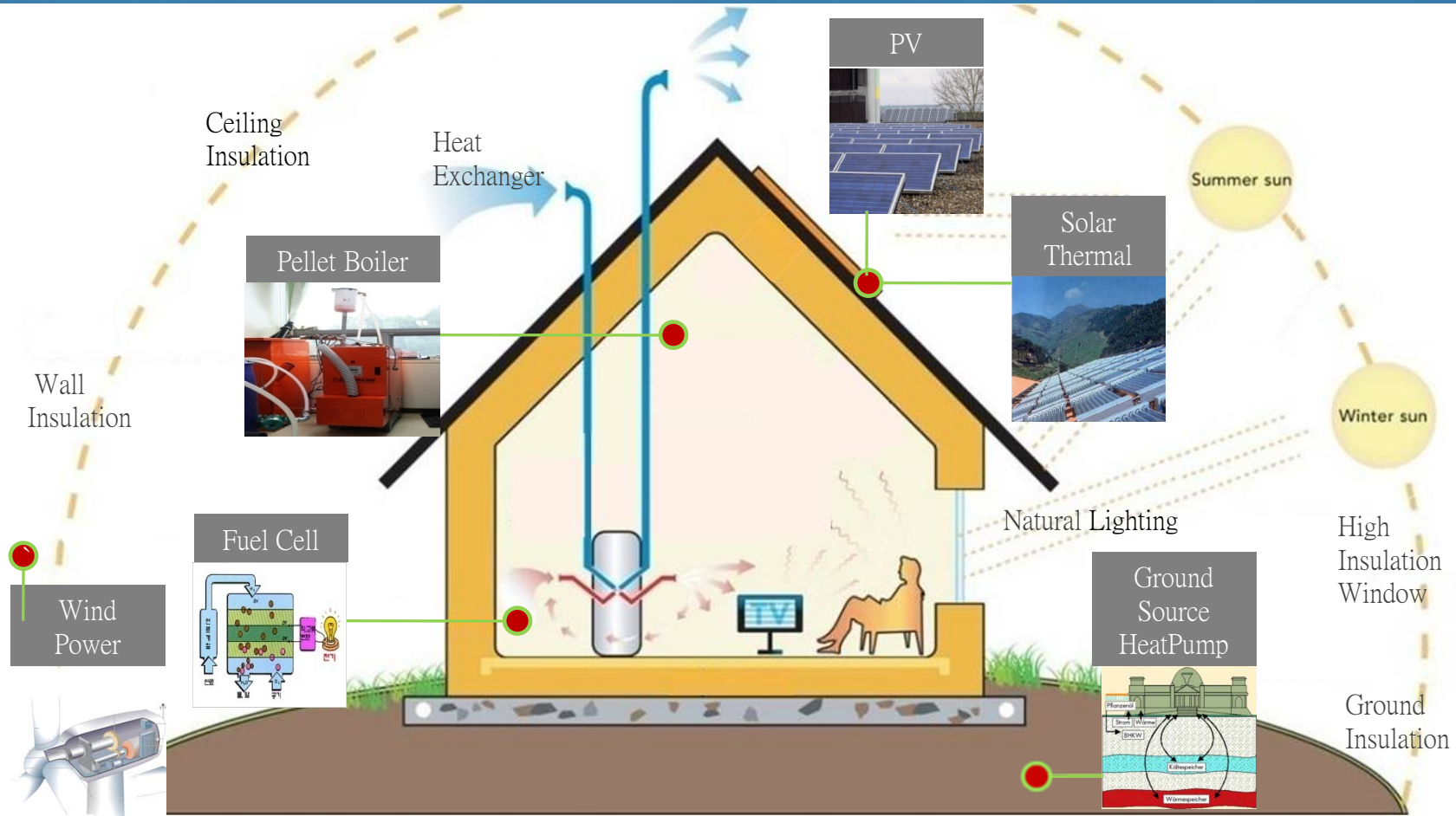
Scope of Subsidy by NE sources

Source	Classification	Subsidized Capacity limit (Per house)	Budget (Mil US Dollar)
Photo Voltaic	Roof top type	Under 3kW/House	44.5
	BIPV		
	Tracker type		1.3
	Namak-Green City		1.7
	Public Rental House		10
Solar Thermal	Flat - plate Solar Collector	Under 8m ² /house	14
	Evacuated Solar Collector		7
Bio	Wood Pellet Boiler	Under 23.3kW/house (Under 20,000kcal/h)	1.6
Wind	Small Wind System	Under 3kW/house	
Geo Thermal	Ground Source Heat Pump	Under consideration	2.5
Total			82.6

Green Home Application Technologies

Green Home

- Passive Technology : High Insulation, Natural Lighting, Heat Exchanger etc
- Active Technology : Renewable Energy Facilities (Solar, Wind, Bio, Geothermal)
- House to minimize Fossil fuel Consumption and to reduce the GHG emission

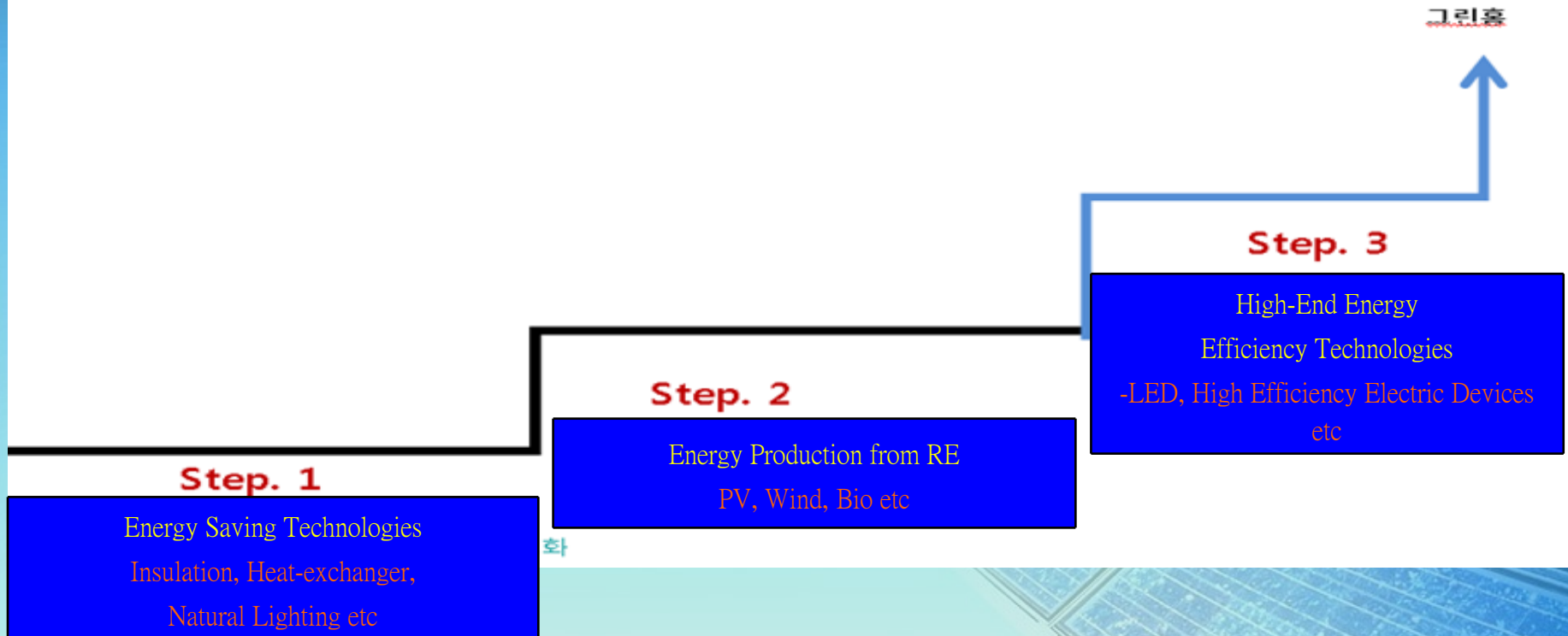


Direction of Green Home

Target by Steps

Zero Energy = Zero CO₂ Emission → PLUS Energy

1. Energy Saving House
2. Zero Energy House
2. PLUS Energy House



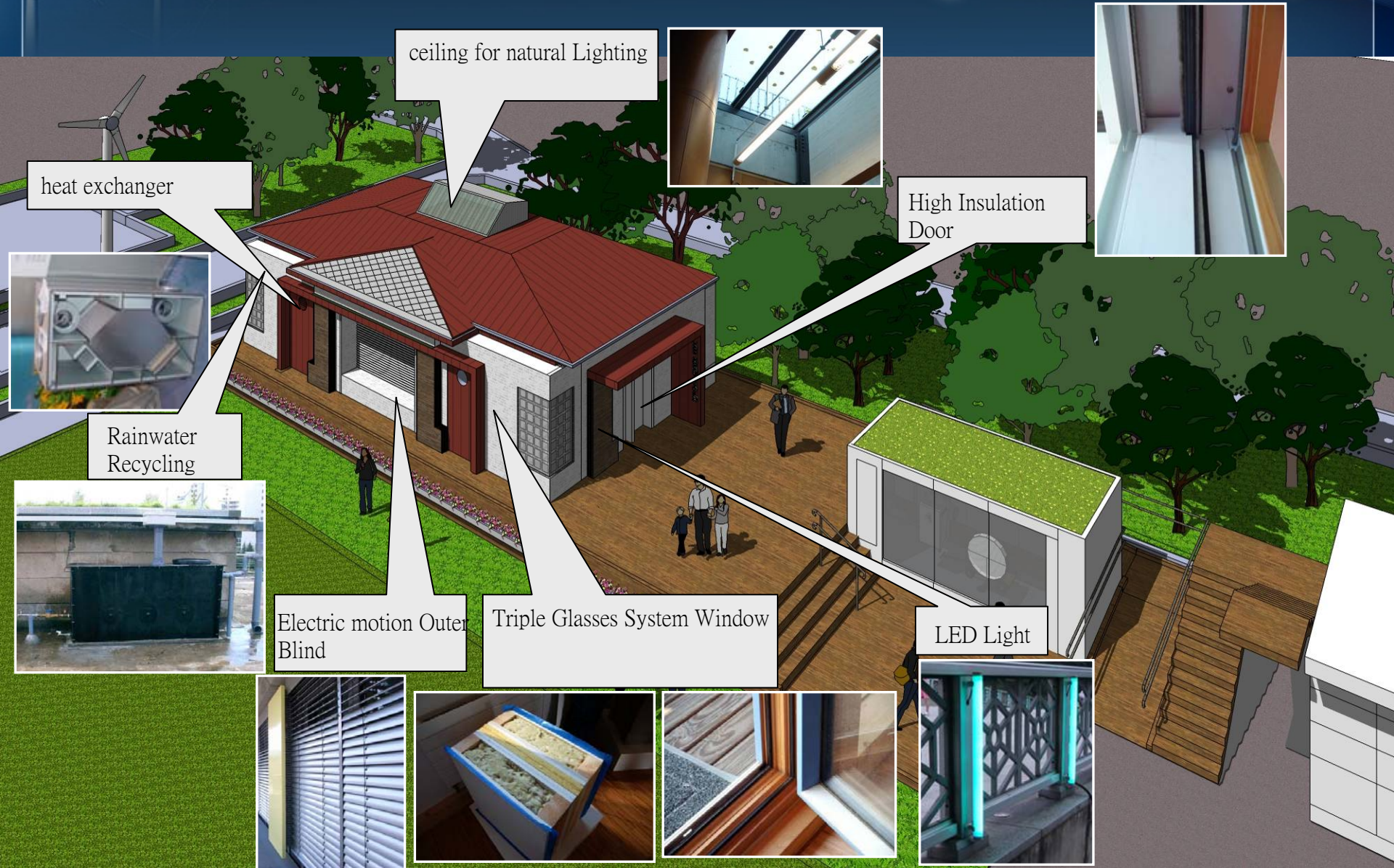
Green Home Showcase (Show House)

Showcase for Green home

- Completion Date : July, 2009
- Place : Gwa-chun City, Kyongi Province.
- Area : 83.17 square meters<similar size to normal houses'>



Application Techs (Passive Technologies)



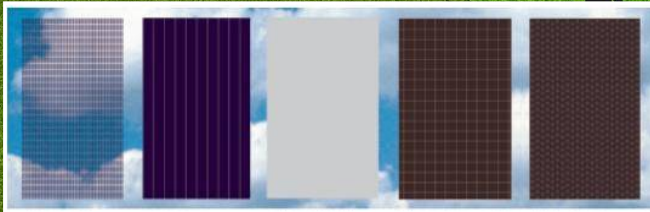
Application Techs (Active Technologies)

Micro Wind Turbine



Crystal PV / Solar Thermal

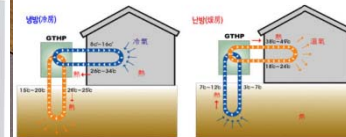
Thin Film PV



Fuelcell



Pellet Boiler, Ground Source Heatpump





Thanks for your attention